

METHOD FOR COATING ARTICLES, AND RELATED METHODS FOR REPAIRING AND MANUFACTURING ARTICLES

Abstract of Disclosure

A method for protecting an article from degradation, and a method for in-situ repair of a component of an assembly are presented, wherein the method for protecting comprises providing a substrate; providing a Plasma Transferred Arc (PTA) apparatus; setting the PTA apparatus to operate in a non-transferred arc mode; and disposing at least one coating on the substrate using the PTA apparatus in the non-transferred arc mode. The method for in-situ repair comprises providing a substrate, the substrate comprising a component of an assembly and coupled to the assembly; providing a PTA apparatus; welding the substrate using the PTA apparatus in a transferred arc mode to form a welded region on the substrate; setting the PTA apparatus to operate in a non-transferred arc mode; and disposing at least one coating on the welded region of the substrate using the PTA apparatus in the non-transferred arc mode, wherein the PTA apparatus is operated using a pilot arc power supply to dispose the at least one coating.